



Science Group

Review of 2009

Helping animals through welfare science



PUBLISHED MARCH 2010



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Tel: 0300 1234 555 www.rspca.org.uk/sciencegroup

A charity registered in England and Wales no. 219099

Printed on 100% recycled paper

ISSN 1751-469X 2.10

COVER IMAGES: ANDREW FORSYTH/RSPCA PHOTOLIBRARY X3, DEREK MIDDLETON/RSPCA PHOTOLIBRARY

Editorial

One of the major strengths of the RSPCA, and one which distinguishes it from other animal welfare charities, is the amazing scope of its activities. In support of the Society's objects to promote kindness and prevent cruelty to all animals, the RSPCA science group's four departments are concerned with improving the welfare of companion animals, farm animals, animals used in research and wildlife. The veterinary hospitals and wildlife centres also play their part in ensuring that all the RSPCA's policies and activities are based on sound scientific evidence. This approach gives the organisation substantial credibility with its supporters, the general public and decision-makers, thereby enabling the Society to advance animal welfare more effectively.

A significant focus of the work of the RSPCA science group during the year was involved with the development of strategic animal welfare objectives for the Society. This has proved timely, as increasing financial pressures have demanded that we focus our resources in the most effective way. The objectives were developed following an analysis of welfare issues and the ability of the RSPCA to influence them. This activity reconfirmed the central role that science plays within the RSPCA.

One way of ensuring we work to optimum efficiency is to collaborate and to work in partnership wherever possible. Examples of this will be found throughout this *Review*, across the work of all of the science departments. Sometimes, such partnerships may involve detailed technical work with government or industry, unnoticed by the general public. Members of the science group might also, for example, advise on issues relating to public campaigning to educate consumers in how their buying choices can help to improve the welfare of animals. In every case, however, honesty and accuracy underpin all of our actions.

Overall, this *Review* confirms the successes that the RSPCA has achieved through adopting this approach. Whilst we are proud of the progress that has been made, we recognise that even greater efforts will need to be made to ensure animal welfare is not ignored in a world facing ever increasing social, economic and environmental threats. The RSPCA science group will continue to work tirelessly to improve the lives of animals wherever we can.



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Companion animals

The RSPCA companion animals department believes that everything the RSPCA says and does to help companion animals should be based on science, experience and common sense. To that end, the department generates, collates, reviews and communicates science and good practice to empower people (outside as well as inside the RSPCA) with the knowledge they need to protect and improve the welfare of companion animals.

In broad terms, the RSPCA defines 'companion' animals as pets, animal athletes and working animals. Currently, our work covers the following species: dogs, cats, rabbits, horses, donkeys, guinea pigs, chinchillas, ferrets, rats, mice, hamsters and gerbils. Our primary responsibility is to provide our colleagues across the RSPCA with technical advice in relation to companion animal welfare. Collectively, we spend the majority of our time delivering an internal welfare knowledge consultancy service across the RSPCA.

Companion animals department development

In the past two years, the RSPCA's companion animals department has grown considerably and is now home to a team of six animal welfare scientists.

Over the last 12 months we have started to build a brand new evidence-based knowledge resource. It is evolving rapidly and by April 2010 it should contain essential information about the key welfare needs of 11 species (in line with the welfare needs identified in the Animal Welfare Act 2006). Each species document will be underpinned by a 15,000 word scientific literature review. Developing and populating this new RSPCA resource has been a very significant piece of work for the team during 2009.

As well as providing an internal knowledge consultancy service, the companion animals department also takes a very proactive approach to protecting and promoting the welfare of companion animals. In 2009 we have been involved in a number of important scientific studies and some very high profile campaigns, notably in relation to pedigree dog welfare and welfare in dog training.

The companion animals department has also worked collaboratively with many other organisations, including the Feline Advisory Bureau on an exciting, evolving initiative to help tackle the growing and very serious issue of antifreeze poisoning in cats. More information about individual elements of

our proactive work in 2009 is provided elsewhere in this section.



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Pedigree dog breeding in the UK

In August 2008, a BBC One documentary – *Pedigree Dogs Exposed* – investigated the serious health and welfare issues experienced by many pedigree dogs as a result of the way they are bred. The documentary sparked a huge and long-overdue public debate that has already led to positive change within the pedigree dog world.

Following the documentary, the RSPCA companion animals department commissioned an independent scientific report in order to help inform all those dedicated to protecting and improving the welfare of pedigree dogs. Published in February 2009, *Pedigree dog breeding in the UK: a major welfare concern?* addresses the impact of traditional selective breeding practices on dog welfare. As an independent report, its findings are the views and conclusions of its authors and contributors, who are recognised experts in the fields of genetics, epidemiology, animal welfare science and veterinary science.

The authors of the report reviewed the available science and concluded that the welfare issues associated with pedigree dog breeding are very serious and can be split into two distinct, but interrelated issues:

- exaggerated physical features that result directly in disability, behavioural problems or pain, and thereby unnecessary suffering
- high rates of diseases with hereditary causes as a result of lack of genetic diversity.

In order to identify and implement practical, evidence-based, effective solutions to the problem, the authors of the report also proposed and prioritised 36 recommendations for action for possible ways forward. This was based on a survey of 20 experts in the fields of animal welfare, genetics, veterinary science and practising vets.

The findings of *Pedigree dog breeding in the UK: a major welfare concern?* have underpinned the RSPCA's position and activities on this very serious animal welfare issue.



The full report and its accompanying executive summary are available to download at www.rspca.org.uk/pedigreedogs. Further information on the authors of the report and the RSPCA's position on this issue can also be found at the above web address.

THE RSPCA IS FIRMLY COMMITTED TO HELPING PROTECT THE WELFARE OF PEDIGREE DOGS

APGAW and Bateson inquiries into dog breeding

Following *Pedigree Dogs Exposed*, two further inquiries into dog breeding were announced. The Associate Parliamentary Group for Animal Welfare (APGAW) inquiry into the breeding of pedigree dogs reported in November 2009. The Bateson inquiry into dog breeding – funded by the Dogs Trust and the Kennel Club, with Professor Patrick Bateson as its chairman – reported in January 2010.

The companion animals department contributed to both inquiries, by giving written and oral evidence.

Following on from publication of the Bateson report, the RSPCA has called for a meeting of all key stakeholders.

We believe that the findings and recommendations from the various inquiries and reports on dog breeding should be discussed at this meeting, in order to agree a way forward on this complex issue. We are also working proactively on the development of a puppy sale contract in collaboration with the British Veterinary Association Animal Welfare Foundation and other interested stakeholders. This is intended to enable the public to make informed decisions when buying a puppy.



Inherited diseases

The authors of *Pedigree dog breeding in the UK: a major welfare concern?* proposed and prioritised 36 recommendations for possible ways forward to improve the welfare of pedigree dogs, based on a survey of experts. The recommendation that was considered to be of highest priority was 'the systematic collection of data on inherited diseases suffered by dogs'.

The RSPCA companion animals department is working with the University of Sydney and the Royal Veterinary College on a three-year research project to create a new electronic system for collecting, analysing and reporting data on inherited disorders in both dogs and cats. When complete, for the first time in the UK, there will be comprehensive data to show how common inherited disorders are in specific breeds. This will allow the effectiveness of any new breeding initiatives to be monitored.



IDENTIFYING AND
IMPLEMENTING
EVIDENCE-BASED,
EFFECTIVE SOLUTIONS

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RSPCA animal hospitals

The RSPCA animal hospitals exist to provide treatment for companion animals in our care as well as subsidised veterinary care for those owners unable to afford private veterinary fees. The animal hospitals' veterinary experience provides important feedback on the welfare of companion animals.

Feline skin tumours

Feline skin tumours are commonly encountered in small animal practice but there have been few surveys published and none recently. Those surveys that have been done have been by pathologists or referral institutions and hence the results will be biased by the process of selection for referral.

Accordingly, the records of skin tumours removed from cats in a fifteen-year period at the RSPCA Harmsworth Hospital have been reviewed in order to gauge their incidence in a first opinion charity veterinary hospital.

A total of 287 cases comprising 21 different types of tumour were documented in this study. Four tumours accounted for the greatest proportion, broadly in line with earlier surveys. However, because the data were collected at first presentation, they are likely to represent a closer estimate of the true incidence than previous studies.

The only treatment offered was surgical resection, which was successful in the vast majority of cases, in spite of the fact that most feline skin tumours are classified as malignant. The main problem encountered was recurrence at the site of operation in the case of fibrosarcomas.

Influencing decision makers

Scientific staff from the RSPCA's companion animals department promote the Society's policies, aims and objectives through advocacy to government, statutory bodies, industry, academia and other organisations. Below are some of the examples of our work with animal welfare stakeholders.

Membership of committees and working groups:

- The Cat Group.
- Equine Health and Welfare Strategy Group.
- British Veterinary Association Animal Welfare Foundation (BVA AWF) Dog Breeding Stakeholder Group.
- Pet Obesity Task Force (chair).
- National Equine Welfare Council.

Meetings and events:

- BVA AWF Dog Breeding Stakeholder Group – to discuss pedigree dog breeding issues.
- Universities Federation for Animal Welfare (UFAW) symposium.
- Companion Animal Behaviour Therapy Study Group study day, Birmingham.
- International Veterinary Behaviour Meeting 2009, Edinburgh.
- Feline Advisory Bureau annual conference.
- Feline Advisory Bureau Cat Group meeting.
- Rodent Welfare meeting.
- Working party for the Welsh Rabbit Code of Practice, at the Welsh Assembly.

Responses to consultations included the following:

- Department for Environment, Food and Rural Affairs (Defra) – Code of practice: dogs and cats.
- APGAW – oral and written evidence given to the inquiry on pedigree dog breeding.
- Bateson – oral and written evidence given to the inquiry on dog breeding.
- Defra – consultation on the Welfare of Racing Greyhounds Regulations 2010.
- New Animal Health Body consultation.
- Welsh Assembly - consultation on The Animal Welfare (Electronic Devices)(Wales) Regulations 2009.
- Welsh Assembly Government – Code of practice: rabbits.

Presentations given during 2009:

- UFAW symposium: *Pedigree dog breeding in the UK: a major welfare concern?*

Early neutering of kittens and compliance

Treatment plans fail if there is a breakdown in any part of an important care triangle formed between an animal, owner and veterinarian. Client compliance – the following of a prescribed care plan by the owner – may be less than optimal for many reasons but charitable practice may witness an extreme of poor compliance. RSPCA hospital records indicate that around 40 per cent of clients do not make use of issued vouchers which would provide free neutering, 20 per cent of clients failed to attend surgical appointments and only 25 per cent of clients completed the recommended post-operative checks at the RSPCA Greater Manchester Animal Hospital.



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Neutering cats has benefits for the individual animal and is also successful in reducing overpopulation. However, to counter the particular problem of poor client compliance encountered in the charitable sector, and as kittens may attain sexual maturity as early as four months, where possible, early neutering is carried out.

The advantages of early neutering at RSPCA hospitals are:

- if carried out prior to rehoming, neutering avoids a 40 per cent neutering voucher failure rate
- early neutering may be combined with other visits to the veterinary practice e.g. ensuring second vaccination
- surgical morbidity is reduced with early neutering compared to conventional, resulting in fewer revisits to the practice
- the procedure is cheaper than conventional neutering, enabling more animals to be treated within the charity's budget.

PROMOTING EARLY NEUTERING FOR CATS



Farm animals

Over 900 million farm animals are reared every year in the UK alone. When lobbying for national and international improvements in farm animal welfare on such a massive scale, it is scientific and practical evidence that carry the most weight. Our team of farm animal welfare specialists work in a wide variety of ways to encourage improvements, always using the latest evidence from farm animal welfare research and practical farming experience to support their arguments.

Our dedicated farm animals department staff are respected for their knowledge and expertise by a wide range of stakeholders in the food and farming industries, and work with and lobby governments (UK and EU), retailers, farming industry representatives, animal organisations, veterinarians, scientists, and other key policy makers to improve the lives of as many animals as possible. In addition to providing technical and scientific information to support all aspects of the RSPCA's work on farm animal welfare, staff also give external presentations, media interviews, and produce consultation responses, scientific reports and a range of information resources.

Our scientific team and regional field staff also play a vital role in helping to translate the results of scientific research into commercially-viable higher-welfare systems and practices that farmers can feasibly use.

WORKING TOWARDS A SITUATION WHERE AS MANY FARM ANIMALS AS POSSIBLE HAVE A GOOD QUALITY OF LIFE.

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Developing higher welfare standards and measuring the outcomes

One very important way in which the RSPCA works to improve farm animal welfare is via encouraging implementation of its welfare standards for farm animals. These standards are drawn up and reviewed regularly by farm animals department specialists, taking account of all the latest information from scientific research and practical experience. Their aim is to reflect best knowledge and best practice on all aspects of species-specific animal welfare.

Clearly, in order to be successful, the standards must also be achievable in practice and, in addition to seeking advice from scientists and veterinarians, input from farming industry representatives is also taken into consideration. Technical working groups for each species meet to discuss how to progress the standards and provide advice to staff, though final decisions on amendments are made by the RSPCA.

Chickens reared for meat (broilers)

In 2007 the EU adopted the first piece of legislation specifically covering meat chicken welfare. The Directive lays down rules for the protection of meat chickens across the EU, and the approximate 830 million meat chickens that are produced each year in the UK will be covered by these regulations from June 2010. Disappointingly, the Directive is weak and inadequate in addressing a number of serious welfare issues. For example, the Directive permits, by way of a derogation, the keeping of chickens at a stocking density of 42kg/m², which equates to 21, 2kg chickens per square metre. However, for the implementation of the Directive into the UK, the UK government had the option to decide to strengthen the legislation by, for example, rejecting the option to allow chickens to be kept at such a high stocking density.

In order to influence this decision in favour of chicken welfare, the RSPCA therefore launched a social media campaign called 'Quash the Squash' (www.giveanimalsavoice.org.uk/campaigns/quash-squash). The campaign encouraged concerned public to write to the Minister for Animal Welfare to express their concern and request that the option to stock chickens at such a high stocking density be rejected. Our farm animal specialists were heavily involved, meeting with the minister and providing the government with advice and technical information to demonstrate the impact of high stocking densities on chicken welfare. The campaign was very successful and resulted in 11,142 letters being sent to the minister. In addition, in December, the

government announced that they would not adopt the derogation to permit the highest stocking density. This was good news and shows that they listened to the scientific evidence and recognised the importance of higher welfare to UK consumers. Nevertheless, the fact that the UK law will still allow chickens to be stocked at densities considerably higher than the RSPCA believes (and science indicates) is good for their welfare remains a concern.

On behalf of Eurogroup for Animals, our broiler welfare specialist also presented a statement at a meeting of the European Food Safety Authority (EFSA) on the impact of fast growth rates on broiler and broiler breeder welfare. The Directive calls for the European Commission to submit a report on these issues to the European Parliament

PROVIDING SCIENTIFIC SUPPORT FOR EVIDENCE-BASED CAMPAIGNS



The primary vehicle for delivery of the welfare standards is the Society's higher welfare farm assurance scheme, Freedom Food, whose members – farms, hauliers and abattoirs – must implement all the standards relevant to them. The standards act as an embodiment of the RSPCA's farm animal welfare policy, used by the Society to advocate and facilitate welfare improvement

in the industry, either directly (through Freedom Food) or indirectly. Many farming and food industry standards in the UK often adopt certain elements of the RSPCA's standards. Overseas, higher welfare schemes in other countries have been developed using the RSPCA's standards as a template, whilst legislation and codes of recommendation at a European level have been and continue to be influenced by them.

Checking compliance with standards by Freedom Food scheme members is undertaken both by Freedom Food Assessors (who carry out the official annual audit of all members) and by RSPCA Farm Livestock Officers (FLOs) who undertake monitoring visits – often unannounced – on a proportion of members every year. In addition to checking that the RSPCA welfare standards are being properly applied by Freedom



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and Council. Therefore, the European Commission has requested the EFSA to issue two scientific opinions; the first one on the influence of genetic selection on the welfare and resistance to stress of commercial broilers and the second one on the welfare of broiler parent and grandparent stocks raised and kept for breeding purposes. As well as informing the panel on these important issues at the meeting, we also submitted data from scientific studies and RSPCA reports, which the EFSA has taken into account. In 2009, we also met with major broiler breeding companies to discuss the development of breeds with a slower genetic growth rate that meet the requirements specified in the RSPCA welfare standards.

Food members, FLOs are also measuring various 'welfare outcomes' for the animals on Freedom Food-approved farms. This is achieved by diligent observation and recording of carefully selected indicators of welfare – such as the level of lameness or the occurrence of certain positive and negative behaviours seen at the time of the visit. In this way, a picture of the overall welfare state of the animals can be gleaned, both on the individual farms and, eventually, on all farms being visited. This information can be used to inform further development of the welfare standards as necessary, as well as allowing individual farmers to focus on specific areas where welfare needs to be improved. Work on progressing and increasing the impact of welfare outcome assessment is planned for 2010.

Raising international awareness of chicken welfare issues

The RSPCA's work on farm animal welfare increasingly stretches beyond the UK. During March, one of our team made a trip to Thailand, a country from which the UK imports a large amount of chicken meat, to find out more about chicken production there and to explore ways to influence the welfare of the many millions of poultry reared for meat every year. Significant progress was made in building contacts in the chicken industry, and it is hoped that this will enable us to make progress in this area during 2010 and beyond.

In June, our chicken specialist also presented a paper on the effects of genetic selection for fast growth on chicken welfare at an international conference organised by the Universities Federation for Animal Welfare. In the presentation, we were able to illustrate how implementation of the RSPCA welfare standards for meat chickens, which set a maximum permitted genetic growth rate for chickens (as well as requiring many other improvements in husbandry compared with standard production), has resulted in significant improvements in the welfare of the birds. The positive reaction to the talk during and after the conference was an indication of the powerful message it conveyed to the international audience of scientists.



Turkeys

Changes to the RSPCA welfare standards for turkeys were published in December, with over 100 new or amended requirements/pieces of guidance. These aim to ensure that turkey welfare remains as good as possible on any farm applying the standards and include the following:

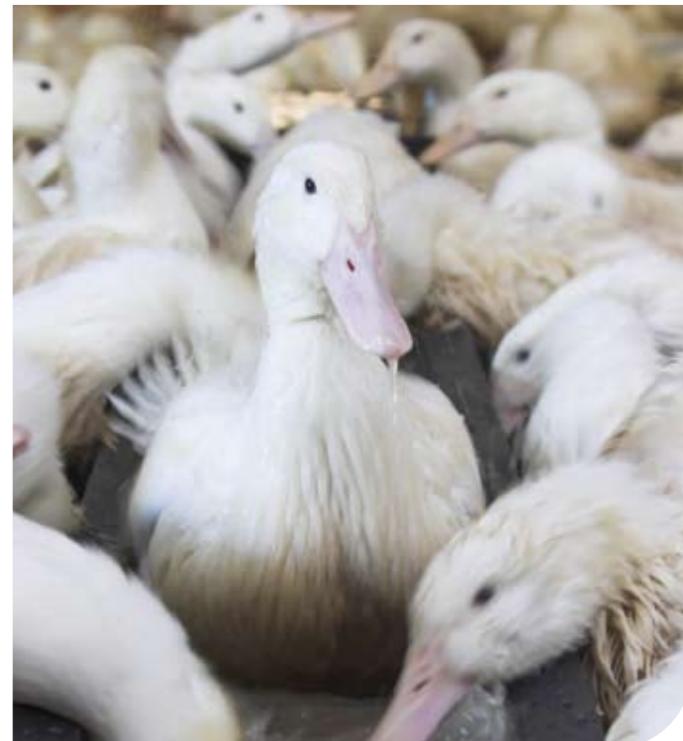
- all systems must provide natural daylight from 1st January 2012, to encourage foraging, exploration and social behaviours
- more detailed perching requirements to allow birds to rest, roost and promote leg health
- requirements to provide specific amounts of outdoor shade and shelter in free-range systems to encourage the birds to use the outside area and offer protection from adverse weather and predators.

COMMISSIONING AND USING THE RESULTS OF IMPORTANT ANIMAL WELFARE RESEARCH

Farmed ducks

In 2007, the RSPCA secured funding from The Tubney Charitable Trust to commission a research project to further develop practical ways of providing farmed ducks with an open source of water. The research, which is being conducted by the University of Cambridge in conjunction with the UK duck industry, aims to develop a commercially viable system that enables ducks to perform key water-related behaviours, without risk to their health.

The second stakeholder group meeting took place in November and consisted of representatives from the UK duck industry, supermarkets, and the British Poultry Council. So far, the early indications from the research are that, from a health and welfare point-of-view, ducks do benefit by having access to any source of open water. The university is in the process of analysing some behavioural data and considering the next steps to complete this important area of research.



Laying hens

With the popularity of free-range eggs increasing, there has never been a better opportunity for even more UK producers to rear to RSPCA welfare standards. However, the RSPCA has had concerns that a shortfall in British free-range eggs, predicted by producers, could lead to more eggs being imported, which are often from hens reared to lower welfare standards.

Over a period of eighteen months, the RSPCA farm animals team looked into how best to move forward on this issue. A thorough consultation was undertaken to fully consider all implications for hen welfare, including liaison with industry, producers, research scientists, vets and retailers, as well as farm visits. Based on this work, the RSPCA decided to increase the maximum permitted outside stocking density for free-range hens in the RSPCA welfare standards from 1,000 to 2,000 hens/ha over the life of the flock, but not without extra requirements to help safeguard – and maybe ultimately even improve – welfare. Importantly, this does not affect the maximum stocking density indoors, the maximum flock size, or the maximum number of birds allowed per hectare of range at any one time.

The additional standards will help to ensure extra attention to range use and quality, as there will be less land available to rest and rotate, and include provision of natural cover, enrichment of the range and careful management of the area directly outside the popholes. These standards, and any further findings from the field and scientific research, including an RSPCA-funded project on range enhancement being undertaken by the University of Bristol, will continue to help hens get the most out of the range area.

Reducing the welfare impact of beak trimming

In September the Farm Animal Welfare Council (FAWC) updated its advice on beak trimming of laying hens, taking into account new research from the University of Glasgow on *Chronic neurophysiological and anatomical changes associated with infra-red beak treatment*.



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The research suggested no evidence of chronic pain associated with the infra-red method of beak trimming and we were encouraged to see FAWC's recommendation for the preferred use of this technique – where it is deemed necessary

to reduce the impact of feather pecking and cannibalism in hens. We strongly agree with FAWC that every effort should be made to end the routine use of any form of beak trimming of laying hens as soon as possible and will be carefully considering all information for consultation with the Department for Environment, Food and Rural Affairs (Defra) in 2010.

Examining pullet welfare in depth

In September 2009, we brought together key representatives from the pullet rearing industry, for the first meeting of the RSPCA/Freedom Food pullet working group. Previously, issues relating to pullets (young hens before they start laying eggs) were discussed at meetings along with matters relating to the adult birds. However, it was felt that the pullet standards would benefit from more in-depth discussion, and it is hoped that the new working group will help us to progress key areas of pullet welfare in the future.

Dairy cattle welfare

In April, one of our farm animal specialists appeared on BBC *Countryfile*, where he expressed concerns about the welfare of the Holstein dairy cow and stated that a National Dairy Cow Welfare Strategy was needed. In a follow-up *Countryfile* programme, it was reported that the response to the first programme had been the largest since the series was first broadcast. Our team also sent a series of letters to the national farming press, asking whether any improvements in dairy cow welfare had been made in recent times, and met with breeding companies, the National Farmers' Union and DairyCo to discuss the issues.



In July the European Food Safety Authority's (EFSA) Panel on Animal Health and Welfare published five scientific opinions and a report on dairy cow welfare. The panel concluded that long-term genetic selection for higher milk yield and the nature of the farming systems used (housing, equipment, management and handling practices) are major factors affecting the health and welfare of dairy cows. The panel proposed a series of recommendations and highlighted the correlation between genetic selection and the incidence of lameness, mastitis, reproductive and metabolic disorders. In late 2009, the Farm Animal Welfare Council (FAWC) also produced their latest opinion on dairy cow welfare, their first communication since their report in 1997 where a record 191 recommendations were made. They concluded that there had been no significant improvements in dairy cow welfare in the last ten years.

We have been heartened by some of the initiatives which have since been put in place by the industry to try to address some of the welfare issues. These initiatives are ongoing and we look forward to following and encouraging their progress in 2010.

Pigs

Further development of the RSPCA welfare standards

The RSPCA welfare standards for pigs were revised during 2009, taking account of scientific research to facilitate further improvements to welfare. The new version, published in January 2010, contains provisions for the gradual phase-out of all farrowing crate systems.

From 23 January 2010 new producers will not be allowed to use conventional farrowing crates at any time. Until 31 December 2013, existing Freedom Food producers will be allowed to use farrowing systems that closely confine the sow for up to five days after farrowing. The section on health planning and Veterinary Health Plans (VHPs) has also been updated in order to make VHPs more dynamic and meaningful documents. Certain welfare indicators, such as pre-weaning mortality levels, body condition of sows, the incidence of tail biting on the unit and the incidence and type of lameness, amongst others, are now required to be listed within the VHP. Also, for those health and welfare issues likely to affect the herd, a prevention and treatment plan must be designed, in conjunction with the vet, and implemented.

Working for better labelling

Work continued on the issue of labelling of pig meat, a topic that has gained increasing exposure both with the general public and policy makers alike. Unlike eggs, which by law must be labelled with their production method, currently there is no legal definition to describe and label pig meat produced from pigs born and reared in different systems. Consumers are therefore not able to make informed choices about the production method that they want to support through their purchases.

In 2009, our farm animal specialists continued to work with the British Pig Executive on developing a set of definitions for 'free range', 'outdoor bred' and 'outdoor reared'. The definitions, along with other labelling issues such as country of origin, are being taken forward by the Pig Industry Supply Chain Taskforce – involving the food and farming industries and government. The Taskforce is due to publish its recommendations in 2010.



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Climate change and animal welfare

Climate change is a huge issue affecting us all, humans and animals. Following on from an RSPCA conference on the topic in June, members of the RSPCA farm animals department met with the National Farmers' Union to discuss the implications for farm animal production and welfare associated with climate change. By working together and exchanging information, our aim is to encourage effective planning to help prevent predicted problems for livestock through appropriate and timely changes in farming practices and systems.



RSPCA PHOTOLIBRARY

Influencing decision makers

Below are just some examples of the committees on which farm animals department staff represented the RSPCA, meetings and events in which they have participated, consultations to which they have responded, and presentations given during 2009.

Examples of membership of committees and working groups:

- Department for Environment, Food and Rural Affairs (Defra):
 - Gamebird working group.
 - Beak trimming core stakeholder group.
 - Stakeholder group regarding the transposition of the EU broiler directive.
- Universities/research institutes:
 - University of Newcastle and Scottish Agricultural College: project steering group on alternative farrowing environments for pigs.
 - University of Bristol: project steering groups on reducing tail biting in pigs, reducing injurious pecking and fitness to travel in laying hens, and cattle lameness.
- British Egg Industry Council infra-red beak trimming steering group.
- European Animal Welfare Platform fish and chicken clusters.
- European Food Safety Authority – recognised expert in Animal Health, Welfare and Nutrition.
- US Humane Farm Animal Care Scientific Standards Committee.
- British Pig Executive (BPEX) Pig Health and Welfare Council.
- England Cattle and Sheep Health and Welfare Councils.
- Wales Animal Health & Welfare Strategy Steering Group.
- Council of Europe Arctic charr and cod working groups.

Examples of key meetings and events during 2009:

- Provided information and support for a LANTRA/RSPCA conference for educational establishments providing the new land-based diploma in agriculture and animal care.
- Participated in Farm Animal Welfare Council (FAWC) stakeholder meeting on mutilations and environmental enrichment for growing pigs.
- Participated in an international symposium on alternatives to surgical castration of pigs.
- Met with the BPEX and key pig producers to discuss production method labelling definitions.

Responses to consultations included the following:

- **FAWC**
 - Mutilations and environmental enrichment for growing pigs.
 - Review of the FAWC.
 - Contingency planning for farm animal welfare in disasters and emergencies.
- **Defra**
 - Welfare of animals at slaughter or killing.
 - New regulations and code for meat chicken welfare.
 - New independent body for animal health.
- **Council of Europe**
 - Draft recommendations on farmed rabbits.
- **Welsh Assembly**
 - Code of recommendations for the welfare of livestock: cattle and sheep.

Examples of presentations given during 2009

- **Presentations on farm animal welfare to:**
 - Harper Adams University College
 - Newcastle University
 - Duke of Edinburgh Award students
- Universities Federation for Animal Welfare (UFAW) symposium: chicken welfare.
- EFSA meeting on the welfare of broilers and broiler breeders: chicken welfare.

Farmed fish

In 2009 we continued to work with the farmed fish industries in a number of countries, promoting the latest practical and scientific evidence of ways to ensure higher standards of fish welfare throughout the lifecycle. Our aquaculture specialist was asked by some Chilean companies to advise them on helping to re-establish their salmon production capability, focusing on fish welfare, after problems with fish disease decimated parts of their industry. Companies in Norway also began using the RSPCA welfare standards for farmed Atlantic salmon as a template for their own systems of production. Our farmed fish remit covers a particularly diverse range of species, and we have been advising on the welfare of farmed sea bass, sea bream, European eel, tuna, Arctic charr and cod on the Council of Europe working groups.



Research animals

Animals are used for many different purposes in research and testing and each area of use raises specific ethical, welfare and scientific issues. The RSPCA adopts a constructive, practical approach, judging every issue individually, critically questioning the necessity and justification for animal use and arguing the need to reduce the conflict between the interests of animals and science as far as possible. Our ultimate aim is the replacement of animal experiments worldwide with humane alternatives. Until this can be achieved, we work to help ensure that animals used experience the minimum of suffering and have the best possible quality of life.

The RSPCA liaises with those involved in animal use in government, industry and academia to promote initiatives that:

- **lead to fuller implementation of the 3Rs*:**
- **develop processes of effective ethical review.**

Revision of European Directive

In last year's *Review*, we covered the publication of proposals by the European Commission for a new Directive on the Protection of Animals used for Scientific Purposes. In January 2009, the European Parliament tasked its Agriculture Committee to review these proposals. The Committee's subsequent report suggested many amendments – some of which the RSPCA supported and some we did not. When the proposals and amendments were voted on in May by the full European Parliament during 'first reading', the outcome¹ was mixed from the animal welfare viewpoint.

Throughout the whole legislative process, the research animals department has provided scientific support to Eurogroup for Animals², analysing and commenting on multiple drafts and amendments, as they lobbied MEPs and other policy makers for tighter controls and better conditions for laboratory animals across Europe. The Society also represented Eurogroup, alongside representatives of the bioscience community and pharmaceutical industry, at a forum organised by the Agriculture Committee.

The RSPCA believes that the new laws should cover all research which may cause

animals to suffer; that each country should have a clearly defined and effective system of authorisation, control and inspection of animal use; and that an ethical evaluation which critically assesses the likely harms to the animals involved (taking into account the whole lifetime experience) against the proposed benefits of the experiments, must be part of the authorisation process.

Many aspects of the original proposals, and some of the amendments suggested by the Parliament, caused the RSPCA great concern. One serious deficiency, which has major implications for how the Directive would be implemented in practice, was the failure to define categories of severity for procedures on animals. In an attempt to resolve this, the Commission convened an expert working group (which included a member of RSPCA staff) to propose suitable criteria for severity classification³.

The Commission's draft proposals were also scrutinised by the Council of Ministers and the position adopted by the UK government became a major focus for our activities. During the year, we attended meetings with Home Office officials to help inform the UK position. In May, the Home Office

Working internationally

The use of animals in research and testing needs to be tackled in a global context. Industries that use animals, whether pharmaceutical, chemical or agricultural are multi-national, and the regulatory testing requirements they work to are international. Scientists in academia also commonly collaborate on an international basis. However, the legislative controls on animal experiments in different countries, and particularly the priority given to animal welfare and ethical review, vary significantly and are a serious concern. Provision of advice on ethics, animal welfare, the 3Rs and legislation is therefore an increasingly important role for the research animals department, working closely with the RSPCA's international department.

Key activities and events during 2009

Croatia recently introduced its first law specifically relating to laboratory animals. The government is now seeking to improve the way this is implemented in practice. As a result, the Croatian government ministry responsible for animal welfare asked the RSPCA to deliver a workshop for government inspectors, and scientists and vets using and caring for laboratory animals in universities and pharmaceutical companies. Held in Zagreb in June, the workshop covered topics including legislation, the 3Rs, housing and care, the role of ethics committees, and openness and transparency.

The RSPCA was a sponsor of the **7th World Congress on Alternatives and Animal Use in the Life Sciences** that took place in **Rome** in September. This important event brought together people from more than 40 countries to discuss progress in the development and implementation of the 3Rs. Around 950 delegates attended, representing governments, regulatory bodies, pharmaceutical and chemical companies, academia and animal protection organisations.

opened a public consultation to which we sent a detailed response. In addition, the House of Lords, European Union Committee Sub-Committee D (Environment and Agriculture) held an inquiry into the Revision of the Directive. We submitted both oral and written evidence⁴ to the Committee whose final report⁵ (published on 10th November 2009) was largely supportive of our views.

We continued to follow developments closely and, through Eurogroup, tried to seek a positive outcome for animals as the European Parliament, Council and Commission negotiated their final agreed position. Consensus on the main principles was reached between these three bodies on December 7th. Overall, the new laws seemingly contain some sound measures, which, if rigorously implemented, should mean an improvement for laboratory animals in many countries within the EU.



RSPCA scientific staff provided presentations on: the revision of the European Directive regulating animal experiments; the use of primates in research; reduction and refinement in the use of genetically altered mice; improving the care of rabbits in research; developing the editorial policies of scientific journals publishing research involving animals; and the work of the RSPCA to promote the 3Rs and develop processes of ethical review.

In November, the RSPCA organised and delivered training workshops in **Taiwan** and **China** for representatives from research establishments using animals. Each workshop was held over two days, and was designed to provide practical examples of the 3Rs and build on previous work to help develop effective systems of ethical review. They were part of the ongoing programme of work in Asia, initiated by the RSPCA's international department. The workshops were well attended and enthusiastically received by the participants.



However, far too many caveats have been included, and in many places the text has been weakened to such an extent that there will be no real positive impact. There also remain some worrying omissions – particularly the absence of measures which would reduce the use and suffering of primates, with only very weak limits on the level and nature of suffering permitted to any animal. The new laws are likely to be formally accepted in spring 2010 and are expected to come into force during 2013. The continuing process can be followed on the European Commission website⁶.

Footnotes and references

- 1 www.europarl.europa.eu/oeil/file.jsp?id=5713682
- 2 www.eurogroupforanimals.org/
- 3 http://ec.europa.eu/environment/chemicals/lab_animals/ewg_en.htm
- 4 [www.publications.parliament.uk/pa/l200809/lselect/ldeucom/164/164i.pdf](http://publications.parliament.uk/pa/l200809/lselect/ldeucom/164/164i.pdf)
- 5 [www.publications.parliament.uk/pa/l200809/lselect/ldeucom/164/164i.pdf](http://publications.parliament.uk/pa/l200809/lselect/ldeucom/164/164i.pdf)
- 6 http://ec.europa.eu/environment/chemicals/lab_animals/nextsteps_en.htm

Improving the care of animals

Promoting more effective, objective assessment of animal welfare and suffering was a major area of work for the research animals department throughout 2009.

Developing guidance

The BVA AWF/FRAME/RSPCA/UFAW¹ Joint Working Group on Refinement (JWGR) is currently developing guidance on defining and implementing protocols for assessing welfare and suffering which will be submitted for publication in 2010. The primary aim is to ensure that animal suffering is detected as rapidly as possible so that something can be done to alleviate it, for example by providing analgesia or reviewing husbandry and care.

A member of the research animals department was sponsored by the Canadian Association for Laboratory Animal Science (CALAS) to give a presentation on the JWGR project at its annual meeting in Montreal in April. The delegates were very supportive and the talk stimulated some extremely useful discussion about practical issues associated with observing and monitoring animals.

Rodent welfare

The 2009 RSPCA/UFAW Rodent Welfare Group² meeting also focused on welfare assessment. Topics included standardising language for describing observations of

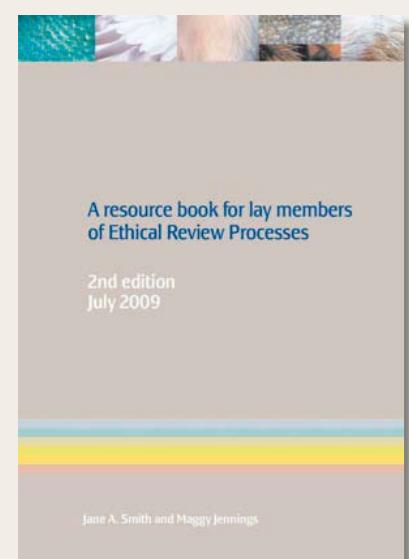


which identifies initiatives that would enable advances to be made in replacing, reducing and refining fish use.

Footnotes and references
1 British Veterinary Association Animal Welfare Foundation / Fund for the Replacement of Animals in Medical Experiments / RSPCA / Universities Federation for Animal Welfare.
2 This group provides an annual forum for scientists, veterinarians, animal technologists and care staff to discuss the 3Rs in research and testing using rodents. For more information, see www.rspca.org.uk/sciencegroup/researchanimals/implementing3rs/rodentwelfaregroup
3 www.norecopa.no
4 Available at: www.norecopa.no/sider/tekst.asp?side=89

Promoting effective ethical review

The RSPCA is a long-standing advocate of local Ethical Review Processes (ERPs) as a means of promoting ongoing consideration of the ethical aspects of animal use, wider involvement in decisions regarding the justification for animal use, and advancing implementation of all 3Rs. Developing the role of lay members is a major area of our work.



A resource book for lay members of Ethical Review Processes

2nd edition
July 2009

Jane A. Smith and Maggy Jennings

The new, and completely revised edition of the RSPCA's *Resource book for lay members of local ethical review processes* was launched during 2009 and is already proving very popular with ERPs in the UK and abroad. Copies were distributed at training workshops in Taiwan, along with accompanying resources on animal husbandry and care. The latter are now available in Portuguese (Brazilian) and translation into other languages is also being considered.

The annual *Lay Members' Forum* goes from strength to strength and this year attracted representatives from over 50 establishments. The meeting was held at the Royal Society with speakers from academia, industry and the Home Office inspectorate. The initial sessions considered judgments on harms and benefits,

focussing on how decisions are made with respect to specific procedures, rather than the more usual consideration of the harm/benefit assessment of projects as a whole.

The topics covered were surgical preparation of animals, the creation and use of genetically altered animals, and re-use of animals, and there were lively discussion sessions after the presentations. The meeting also considered the difficult topic of retrospective review of projects, with speakers providing examples of how this is done in four different types of establishment in industry and academia.

The final presentation of the day was delivered by the Home Office chief inspector who provided an update on the changing legislation in Europe and

Editorial policies of scientific journals

Over 120,000 articles relating to research using animals are published overall each year across more than 2,000 journals. Many different species of laboratory animals are involved, from rodents to primates, as well as a range of wild, farm and companion animals.

Journals are instrumental to the communication of scientific knowledge around the world. By requiring that the research they publish is humane, adheres to current good practice and implements the 3Rs, scientific journals also have a significant opportunity to influence how research involving animals is conducted. In addition, they can play a key role in stimulating informed discussion of the ethical issues surrounding the use of animals and encourage greater transparency.

In January, the RSPCA research animals department undertook its third annual survey of the editorial policies of journals that publish research involving animals¹. The headline figures are published each year² in the Society's report *The welfare state – measuring animal welfare*.



During 2009, an analysis of the inaugural year's survey results was also published in the *American Journal of Bioethics*³.

Through the survey, we have established contact with nearly 800 journals. We have also produced a leaflet⁴ which contains publication policies and principles as well as a good practice model for journals to use when reviewing their own editorial policies regarding the use of animals.

A SIGNIFICANT OPPORTUNITY TO INFLUENCE

Genetically altered animals: reduction and refinement



on topics within the Home Office that were particularly relevant to ERPs and lay members in particular.

The other major project, now nearing completion, is the work being carried out together with the UK Laboratory Animal Science Association to develop a set of *Guiding principles on good practice for ERPs*. This will help with the interpretation of the ERP's seven core functions¹, exploring in more detail the purpose of each, and the most efficient way of implementing these in practice.

Information regarding current resources and past/future meetings can be found at: www.rspca.org.uk/ethicalreview or email: erp-laymembers@rspca.org.uk

Footnotes and references

1 Originally set out by the Home Office in a Statement on the Ethical Review Process (1998), available at: <http://scienceandresearch.homeoffice.gov.uk/animal-research/publications-and-reference/publications/guidance/ethical-review-process/ethicalprocess.pdf>
2 Biotechnology and Biological Sciences Research Council; Cancer Research UK; Medical Research Council; National Centre for the Replacement, Refinement and Reduction of Animals in Research.
3 Available at: www.rspca.org.uk/sciencegroup/researchanimals/implementing3rs/transgenctraining



Footnotes and references
1 Since the survey's inception, the policies of 790 different journals have been reviewed.
2 Available at: www.rspca.org.uk/in-action/improvinganimalwelfare/indicators
3 Osborne, N.O., Payne, D. and Newman, M.L. (2009) *Journal editorial policies, animal welfare and the 3Rs*. *American Journal of Bioethics* 9(12) p55-59.
4 See: www.rspca.org.uk/sciencegroup/researchanimals/implementing3rs/journalpublicationpolicies

quarters including the Home Office minister Meg Hillier MP. Implementing the recommendations would considerably reduce the number of GA animals maintained in the laboratory.

In practice

In February, a training event *Transgenics and the 3Rs - what's it all about?* was held for scientists and technicians, the aim being to highlight 3Rs opportunities in this area of research. The meeting included a range of presentations relating to good practice in the production, breeding and care of GA mice and posters along the same theme are now available³. As the meeting was over-subscribed it is being run again in April 2010.



Footnotes and references
1 Available at: www.rspca.org.uk/sciencegroup/researchanimals/implementing3rs/sharingandarchivinggammice
2 Biotechnology and Biological Sciences Research Council; Cancer Research UK; Medical Research Council; National Centre for the Replacement, Refinement and Reduction of Animals in Research.
3 Available at: www.rspca.org.uk/sciencegroup/researchanimals/implementing3rs/transgenctraining

Cosmetics testing using animals - the end?

In March, legislation came into force across the European Union (EU) banning the use of animals to test cosmetics ingredients, and the sale of cosmetics containing ingredients tested on animals anywhere in the world¹. Although these bans will not be complete until 2013, as there is an extended deadline for some animal tests, the RSPCA welcomed their introduction.



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There is however a danger that they could be undermined by recent EU legislation relating to the manufacture, marketing and use of chemicals. The REACH regulation² (for the Registration, Evaluation, Authorisation and Restriction of Chemicals) could require chemicals used in cosmetics to be tested on animals. This would have serious consequences for cosmetics companies operating a 'fixed cut-off date' policy.

The Society contacted the European Chemicals Agency³ and the UK Health and Safety Executive⁴ to clarify whether the cosmetics testing bans would prevent animal testing for REACH, but no clear

answer was forthcoming. In August, the Bulldog⁵ company organised a meeting for a large number of representatives from cosmetics companies to discuss this problem. The Society's expert on toxicology issues gave a presentation on alternatives to animal testing and problems foreseen with the implementation of REACH.

Footnotes and references

- 1 http://ec.europa.eu/enterprise/sectors/cosmetics/animal-testing/index_en.htm
- 2 http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm
- 3 <http://echa.europa.eu/>
- 4 <http://www.hse.gov.uk/reach/>
- 5 <http://www.meetthebulldog.com/>

Animal cloning

During 2009, the research animals department continued to call for a ban on the cloning of animals for commercial purposes and raise awareness of the significant animal welfare issues associated with this application of biotechnology.

Genomics and breeding

In January, the Society's biotechnology specialist participated in an EADGENE¹ workshop on Animal Genomics and Breeding. The workshop explored ethical and societal issues and a broad range of ideas and opinions, relating to animal genomics and the future for farm animal breeding.

Animals cloned for food

In April, the research animals department attended a stakeholder meeting at the UK Food Standards Agency (FSA) where the government's position on the revision of the European Novel Foods Regulation² was discussed. The Society reinforced its view (outlined in our response³ to the FSA's consultation on the revised regulation in 2008) that should the European Commission allow food products from cloned animals and their offspring to enter the market, these products must be subject to a strictly applied authorisation process which addresses the ethical and animal welfare implications



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and imposes an obligation for appropriate labelling. In September, the RSPCA (on behalf of Eurogroup for Animals) attended an 'exchange of views' meeting with the European Commission to highlight the impact that cloning animals for food would have on the health and welfare of livestock animals.

Cloned pets

The RSPCA welcomed the announcement⁴ that one of only two companies in the world offering to clone people's pets was to withdraw this service. Five years ago, when the company launched this service in the United States, the Society had voiced its serious animal welfare

and ethical concerns and correctly predicted that it would find little public support.

Footnotes and references

- 1 European Animal Disease Genomics Network of Excellence for Animal Health and Food Safety (funded by the European Commission) - www.eadgene.info
- 2 http://ec.europa.eu/food/food/biotechnology/novelfood/initiatives_en.htm
- 3 Available at www.rspca.org.uk/sciencegroup/researchanimals/reportsandresources/biotechnology
- 4 www.bioarts.com/press_release/ba09_09_09.htm

SERIOUS ANIMAL
WELFARE AND ETHICAL
CONCERN

Influencing decision makers

Scientific staff from the RSPCA's research animals department promote the Society's policies, aims and objectives through advocacy to government, statutory bodies, industry, academia and other organisations. They are members of many national and international committees and working groups, and also have key input into a range of consultations, both to government and non-governmental bodies, on a wide range of laboratory animal issues. Staff have also produced papers on a variety of topics that have been published in peer reviewed scientific journals.

Membership during 2009 included the following groups

- Home Office/Business, Enterprise and Regulatory Reform Steering Group on Efficient Regulation.
- Animal Procedures Committee (APC) – including member of the sub-committee on housing and husbandry of laboratory animals; co-opted member of the sub-committee on education and training; and member of the working group reviewing the revision of European Directive 86/609.
- European Centre for the Validation of Alternative Methods (ECVAM) – Expert Scientific Advisory Committee (ESAC).
- Laboratory Animal Science Association – Section on Education, Training and Ethics (as co-convenor).
- BVA(AWF)/FRAME/RSPCA/UFAW Joint Working Group on Refinement (the research animals department also provides the secretariat for this initiative).
- The Boyd Group.
- National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) – member of the Board; member of steering group on regulatory toxicology.
- UFAW 3Rs Liaison Group.
- Focus on Alternatives.
- Various ethical review processes in industry and academia.

Examples of key meetings/events during 2009

Participation in meetings of all the groups above, as well as the following:

- Invited speaker at meeting of the European Parliament's Committee for Agriculture and Rural Development discussing proposals for a new European Directive on the protection of animals used for scientific procedures*.



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Wildlife

Despite growing public concern, the appreciation of the welfare needs of wild animals is often inadequate. The RSPCA wildlife department seeks to improve welfare provisions for captive and free-living wild animals. This is achieved through research, promoting an awareness of the requirements of animals, and an emphasis on a precautionary and humane approach to human interactions with wild animals.

Changes to the licensing of dangerous wild animals

Protection currently afforded to 'dangerous wild animals' has been threatened by proposals to amend the Dangerous Wild Animals Act 1976 (the Act).

Those who wish to keep animals of a species listed on the Schedule to the Act – which covers tigers to camels and vipers to scorpions – must apply for a licence from their local authority, who should then check that conditions are safe for the public and appropriate for the species concerned before issuing a licence. Although the Act and its enforcement have many weaknesses, it does at least provide an opportunity to check conditions before animals are acquired.

Last year, the Department for Food, Environment and Rural Affairs (Defra) proposed various changes to the Act which would greatly reduce protection for animals. Most concerning was a suggestion to remove all reference to animal welfare, leaving the Act solely about public safety. Other proposals would greatly increase the time between inspections – licences would run for two years rather than one and, more worryingly, inspections for licence renewal would not be mandatory. This could leave several years between inspections, during which conditions and animal welfare could deteriorate considerably.

PROTECTION UNDER THREAT

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Robert Atkinson BSc MSc DPhil
(head of department)

Colin Booty BSc
(deputy head of department)

Tim Thomas MBE Adam Grogan BSc
(senior scientific officers)

Ros Clubb BSc DPhil
(scientific officer)

Sophie Adwick BSc MSc
(scientific information officer)

Alison Charles VN
Bel Deering BA MA PGCert(Res)
Rupert Griffiths Andrew Kelly BSc PhD
(RSPCA wildlife centre managers)

Sue Gallagher Carol Pye
(administration staff)

The RSPCA wildlife department highlighted the danger posed to animal welfare by these changes. Thankfully, Defra have decided not to remove animal welfare from the Act or waive requirements to inspect at the time of renewal. The proposal to inspect every two years has, however, been retained. These changes are expected to come into force in 2010. While not as bad as it could be, this still represents a backward step for animal welfare.



Wildlife licensing

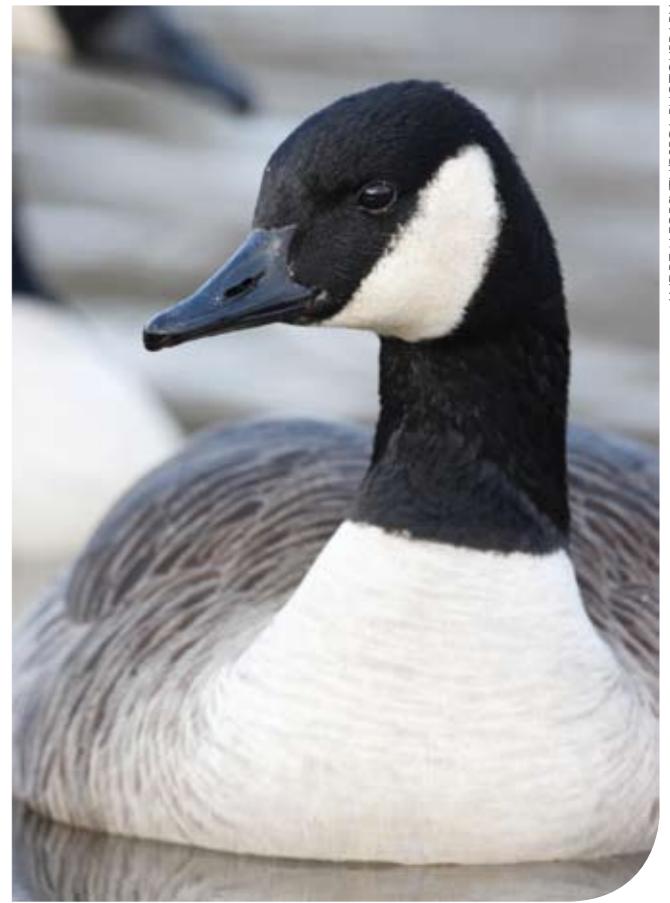
Wildlife licences are issued by government bodies to allow people to undertake activities that would otherwise be unlawful. Such licences may be general or individual. General licences are issued to allow certain actions without the need for people to apply for a specific licence. They are used to regulate activities such as the sale or killing of certain species but with minimum bureaucracy. However, those acting under a general licence must be satisfied they are acting within the provisions of that licence and the law.

The species covered by such licences, the actions permitted and the conditions attached are important from an animal welfare perspective and the RSPCA wildlife department therefore made detailed submissions to separate consultations undertaken during the year by Natural England and the Welsh Assembly.

The outcome of the Welsh consultation will not be available until summer 2010 but in England the changes have now come into effect. We questioned the evidence regarding the addition of Canada geese and Monk and Ring-necked parakeets to the general licences

issued for the purpose of conserving wild birds but Natural England did not change their position. However, they did agree to include guidance regarding a definition of humane killing and to add a note reminding users of their obligations under the Animal Welfare Act.

The killing of Herring gulls will now only be allowed under the air safety general licence. We provided evidence that nest or egg control can be effective and humane in dealing with problems the gulls may cause in urban areas and they agreed to continue to allow the destruction of nests and eggs where necessary for public health and safety.



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The effect of satellite tagging devices on seabirds

The RSPCA has long been concerned about the welfare of animals used in research, as demonstrated by the article on editorial policies in scientific journals (page 19). Wild animals are no exception and have been equipped with a wide variety of devices to collect data on their movements, foraging behaviour, dive depth and duration etc. However, few studies critically investigate the effects that these devices have on their subject animals.

As part of our work on the survival of rehabilitated oiled seabirds, we commissioned Rory Wilson and Sylvie Vandebelle, of Swansea University, to investigate different attachment methods for satellite tags. As part of her study, Sylvie reviewed 357 papers where

animal-attached devices were used on seabirds, to determine the extent to which the authors had considered the effects of such devices.

These papers were split into two groups: those termed 'direct' – where the aim of the paper was to assess the impacts of such devices (42) and 'indirect' – where effects were recorded incidentally. A majority of the direct papers (38/42) recorded an effect on the subject animal, compared with only 13 of 315 indirect papers. This indicates that although devices may cause problems, researchers do not invest enough time and resources to investigate these effects. Devices

affecting their wearers not only impair the welfare of their study animal, but also run the risk of biasing conclusions about populations of animals based on data collected from a few compromised individuals.

This paper has been submitted to the *Journal of Field Ornithology*.



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A role for wildlife casualties in conservation

Wildlife rehabilitation is not usually considered important in terms of wildlife conservation. Rehabilitation works to improve the welfare of the individual, while conservation works to improve the survival of populations. However there are times when rehabilitation can benefit the cause of conservation.

One example is the role that casualty animals can play in disease surveillance, especially if the animal has died. Post mortems can reveal much about an individual animal, but they can also identify potential threats to the wider population. The hedgehog is considered a common species in the UK, but recent reports suggest a decline in the population across the country.

RSPCA wildlife centres submitted hedgehog carcasses to Bristol University as part of a project investigating this decline. The hedgehogs were subject to a post mortem

and their livers analysed for first and second generation rodenticides. These results show that hedgehogs are exposed to these rodenticides, with 57.5 per cent being exposed to second-generation rodenticides. Overall, the study indicates that these rodenticides present as much of a risk to an insectivore like the hedgehog as they do to a predator of rodents, like the polecat.

This therefore creates a challenge for the management of rodent infestations. We continue to recommend removing food sources and places of shelter as the first



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methods to control rodents. The use of rodenticides should only be practised as a last resort.

Reference

Dowding, C.V., Shore, R.F., Worgan, A., Baker, P.J. and Harris, S. (2010) Accumulation of anticoagulant rodenticides in a non-target insectivore, the European hedgehog (*Echinaceus europaeus*). Environmental pollution. 158, 161-166.

RSPCA wildlife centres review

The centres continue to strive for a better understanding of the casualties in their care. Numerous research projects have been undertaken this year to investigate post-release survival in several species. Techniques such as radio tracking are used, as well as simpler methods such as marking, e.g. ringing birds and relying on re-sightings for information on how long these animals survive and how far they have travelled.

Some of this work is carried out in conjunction with the wildlife department and has been promoted widely at various conferences and symposia. In addition, the wildlife department and centres continue to develop species rehabilitation protocols, based on best practice and sound science.

RSPCA EAST WINCH WILDLIFE CENTRE

Update on roe deer tracking

Between 2005 and 2009, East Winch and West Hatch wildlife centres jointly released and tracked 12 hand-reared roe deer fawns (*Capreolus capreolus*). The five females and seven males were fitted with ear-mounted tags and hard released whilst approximately six months old.

Staff tracked the deer daily and recorded deer positions via either a visual sighting or compass bearings and triangulation. All tracking was done during the hours of daylight, though it did vary between the morning and afternoon. Two of the deer are still being tracked. Preliminary data for the remaining animals shows that three of the deer survived until the battery on the tag died and four were confirmed dead by a mixture of dog attack, shooting, unknown causes and euthanasia (all bodies found).



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RSPCA STAPELEY GRANGE WILDLIFE CENTRE

Post-release survival of hand-reared pipistrelle bats (*Pipistrellus spp.*)

In the RSPCA Science group review (2006), we reported on our pipistrelle bat radio-tracking project, which demonstrated that hand-reared bats were able to survive independently in the wild, at least in the short-term (Kelly et al., 2008). Since then, we have radio-tracked a further 13 bats.

In an attempt to measure long term survival, 39 released bats were fitted with individual, numbered 2.9mm aluminium 'C' rings (see photo). Roost boxes on site were checked regularly (under licence) for the presence of ringed bats following release. Of the ten bats radio-tracked in 2007, three were retrieved within four nights after becoming trapped in roof spaces and the transmitters removed. These bats were subsequently over-wintered and released in 2008. The remaining seven bats were tracked for between four and ten days before the signal was lost. Six ringed bats were recorded in roost boxes with the minimum post-release survival ranging from 27 – 236 days (Table 1).

Of the three bats over-wintered, one was tracked for 10 days and continued to use the release box for at least 30 days. The tag failed on the second bat after three days and was removed. However, the bat continued to use the bat box for at least 28 days. The third was tracked for two days before the signal was stationary in a roof space for three days before being retrieved. The tag was removed and the bat was subsequently released again two weeks later.

The results of this project demonstrate that hand-reared, orphaned pipistrelle bats are able to survive in the wild following release and we can be confident that the rehabilitation process is effective.



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References
Kelly, A., Goodwin, S., Grogan, A. and Mathews, F. (2008) Post-release survival of hand-reared pipistrelle bats (*Pipistrellus spp.*). Animal Welfare, 17, 375-382.



TABLE I: Post-release survival of six ringed bats released at RSPCA Stapeley Grange in 2007.^{1,3} were also radio-tracked (both for 10 days).² retrieved day 27.

RING NO.	SPECIES	SEX	RELEASE WEIGHT	NO. OF DAYS
Z3283 ¹	COMMON	FEMALE	5.2	53
Z3254	COMMON	MALE	4.2	53
Z2943 ²	COMMON	MALE	4.5	27
Z3279	SOPRANO	FEMALE	4.5	38
Z3280	SOPRANO	FEMALE	4.8	236
Z3278 ³	SOPRANO	FEMALE	5.2	235

RSPCA WEST HATCH WILDLIFE CENTRE

Peregrine falcon rehabilitation at West Hatch

Between January 2005 and November 2009, 42 peregrine falcons were admitted to RSPCA West Hatch Wildlife Centre. The rehabilitation of peregrine falcons gives rise to difficult challenges, including factors such as their high wingloading – each cm² of wing carrying 0.70g which is double that of a Common Buzzard (Fox, 1995). This combined with a specialised hunting technique explains post-fledging dependency periods in the wild of up to two months (White et al., 1994).

Some of our casualties are recently fledged juveniles that have made flight errors due to inexperience. Since 2007, we have had the help of peregrine falcon nest site researchers, and returned six juveniles to their nest sites. The use of plastic coloured rings has enabled

the success of these returns to be assessed and we have found that juveniles returned to the nest after a separation as long as eight days, are accepted and fed by the parents.



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assessment of their post-release survival. One goal of the tracking work is to establish that released peregrines are capable of catching prey. Since 2008 we have tracked three released juvenile peregrines trained with falconry techniques and all were recorded successfully catching prey. Longer-term survival requires satellite tracking to assess.

Footnotes and references
Holz et al. (2006) Fitness Level as a Determining Factor in the Survival of Rehabilitated Peregrine Falcons (*Falco peregrinus*) and Brown Goshawk (*Accipiter fasciatus*) Released back Into the Wild. Journal of Avian Medicine and Surgery 20(1):15-20.

Fox, N. (1995) Understanding the Bird of Prey. Hancock House Publishers. pp.40-44.
White, C.M. et al. (1994) Family Falconidae, in del Hoyo, J., Elliott, A. and Sargatal, J. Handbook of Birds of the World: New World Vultures to Guineafowl, 2. Barcelona: Lynx Edicions. pp. 216-275, plates 24-28.



RSPCA MALLYDAMS WOOD WILDLIFE CENTRE

Air gun shooting injuries in gulls

Annually, over 550 large gulls are admitted to the RSPCA Mallydams Wood Wildlife Centre in East Sussex. These are generally orphaned chicks that have fallen from urban nesting sites. However, an increasing number of adult birds from the Southeast region have been shot using air rifles or shotguns.

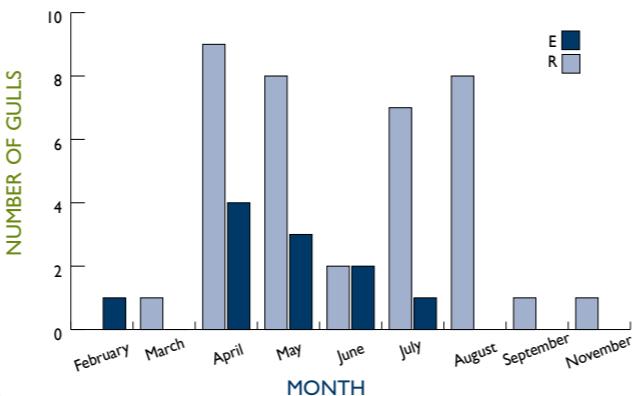
In 2000/01, only 16 birds were found with visible air gun pellets and associated injuries, but by 2008/09, this number had increased to 48. The main victims are adult birds, with peak admissions between April and August, when birds are defending or maintaining nest sites, providing static and easy targets for assailants (Table 1). The frequency of birds admitted with no visible injuries, but unable to fly, necessitates all gulls to be routinely X-rayed. Many birds have typical fractures of the limb – for example fractured ulnas – but some have visible pellets embedded in the head and chest tissue. Multiple pellets were found in 10 per cent of the birds examined, indicating the animal was maimed then shot while on the ground. In one incident, five pellets were found in a single bird (Figure 1).

These figures from the Southeast region indicate a possible trend throughout the country. Gulls are afforded a level of protection under the Wildlife and Countryside Act 1981 legislation, but causing suffering to an individual animal under the Animal Welfare Act 2006 and discharging a firearm in a public place carry further penalties.



FIGURE 1: Multiple pellets can be found in single birds.

TABLE 1: Outcome for gulls admitted during 2009: euthanised (E) or released back into the wild (R).



Attitudes towards urban nesting gulls are strongly divided, with 50 per cent of coastal communities wishing local authorities would implement proactive plans to reduce gull numbers. Nonetheless, deliberate acts of cruelty on individual animals will not resolve this issue. It is essential that further research be conducted to understand urban gulls and offer humane alternatives to control populations where necessary.



Consultation responses

Defra

- Proposals for fairer and better environmental enforcement.
- Proposals for a new independent body for animal health.
- Amendments to legislation allowing lay vaccination of badgers against bovine tuberculosis.

Natural England

- General licences under the Wildlife and Countryside Act.

Welsh Assembly government

- Tuberculosis Eradication Order.
- General licences under the Wildlife and Countryside Act.

Committee of Advertising Practice

- Review of British Code of Advertising.

Broadcast Committee of Advertising Practice

- Review of Code for TV and Radio Advertisements.

Meetings and events

- Meeting with Eurogroup on European standards of care for non-domestic companion animals.
- Launch of Highways Agency's Deer Aware driver information programme.
- Joint conference with Lantra, RSPCA Education and other RSPCA science group departments for prospective teachers of the new Land-based and Environmental Diploma – animal welfare considerations.
- Stakeholder meeting of the England bovine TB eradication group.
- The Mammal Society Autumn Symposium on human-wildlife conflict resolution.
- Wildlife and Countryside Link whale group meeting to discuss future scope of work.
- Wildlife and Countryside Wildlife Trade working group meeting with the National Wildlife Crime Unit.
- Presentation to students at Hadlow College, Kent on RSPCA rehabilitation.
- Presentation to the elephant sub-panel of the Zoos Forum on the welfare of zoo elephants.
- Expert witness in USA court case involving elephants in circuses.
- International Wildlife Rehabilitation Council (IWRC) conference, Virginia Beach. RSPCA co-sponsored event with workshop on the importance of post-release monitoring in assessing survival of rehabilitated wildlife.
- Presentation on survival and breeding rates of elephants at British and Irish Association of Zoos and Aquariums annual general meeting and conference.
- Otter biodiversity steering group meeting.
- Bat Conservation Trust conference. Presentation on the development of a bat flight at RSPCA Stapeley Grange Wildlife Centre and radio tracking of rehabilitated juvenile pipistrelle bats after release (see page 25).
- British Wildlife Rehabilitation Council conference. Presentation on the importance of research in wildlife rehabilitation.

External funding

- An assessment of the effects of transmitters on guillemots for satellite tracking.
- Research by the Wildlife Conservation Research Unit, Oxford University, into the welfare effects on animals of re-wilding.

Scientific publications

Kelly, A., Leighton, K. and Newton, J. (in press) *Using stable isotopes to investigate the provenance of a Eurasian Eagle Owl (*Bubo bubo*) found in Norfolk, England*. British Birds.

Couper, D. and Gibbons, L. (in press) *First record of *Tetrameres* species Parasites in Tawny Owls (*Strix aluco*) in the UK*. The Veterinary Record.

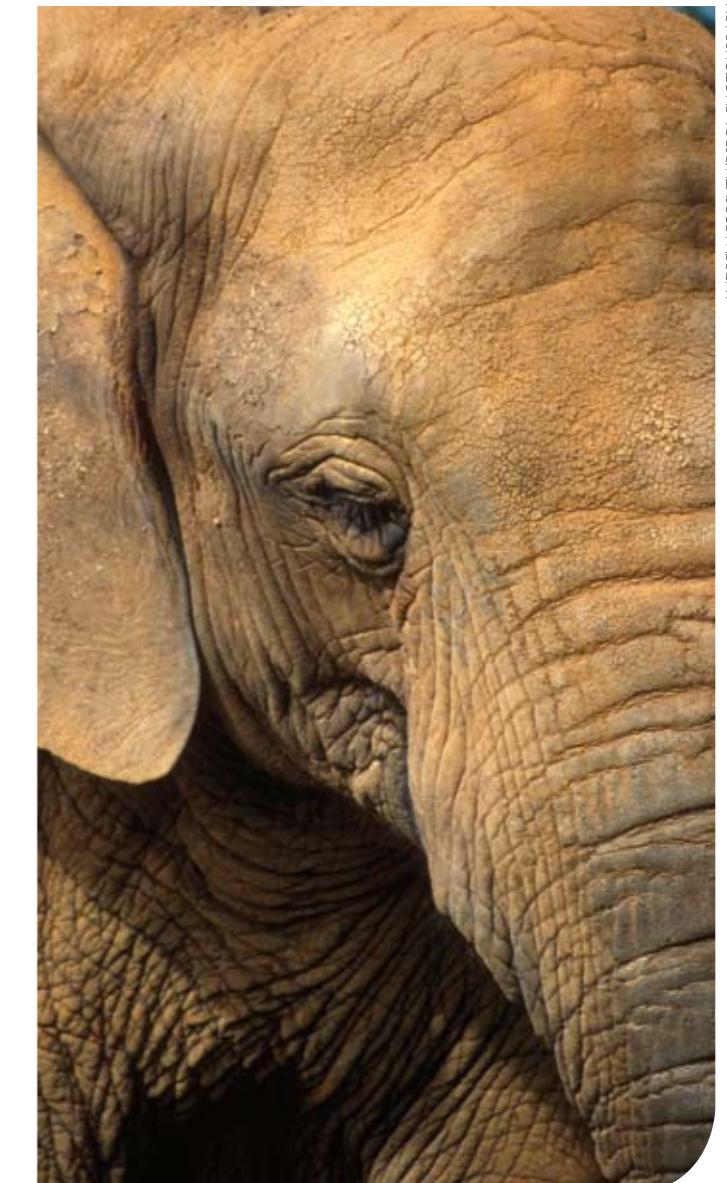
Griffiths, R., Murn, C. and Clubb, R. (in press) *Survivorship of rehabilitated juvenile Tawny Owls (*Strix aluco*) released without support food, a radio tracking study*. Avian Biology Research.

Influencing decision makers

Scientific staff from the RSPCA's wildlife department promote the Society's agreed policies, aims and objectives through advocacy to government, statutory bodies and other organisations at the highest level. They are members of many national and international committees and working groups and also have key input into a range of consultations, both to government and non-governmental bodies, on a wide range of wildlife issues.

Representation on external committees

- The Deer Initiative.
- Ashdown Area Deer Group.
- Department for Environment, Food and Rural Affairs (Defra) Animal Welfare Act secondary legislation working groups:
 - Primate as pets.
 - Wild animals in circuses.
 - Lyssavirus in bats.
- British Wildlife Rehabilitation Council (BWRC) steering committee.
- Species Survival Network (SSN) board.
- World Conservation Union's otter specialist group.
- Wildlife and Countryside Link (trustee).
- Wildlife and Countryside Link Wildlife Trade working group (chair).
- Whalewatch coalition.
- Marine Animal Rescue Coalition (MARC).
- Animal Welfare Network (Wales).
- Zoos Forum.



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